

Title (en)
MULTI-LEVEL POWER CONVERTER

Title (de)
MEHRSTUFIGER LEISTUNGSWANDLER

Title (fr)
CONVERTISSEUR DE PUISSANCE MULTI-NIVEAUX

Publication
EP 2945272 A1 20151118 (FR)

Application
EP 15163313 A 20150413

Priority
FR 1454238 A 20140513

Abstract (en)
[origin: US2015333658A1] This is a multi-level converter comprising at least one arm (B) formed of n stages (Et1, Et2, . . . , Etn) mounted in cascade. The first stage (Et1) comprises a single switching structure (Ce10) with four voltage levels and an ith stage (i lying between two and n) comprises i identical switching structures (Ce1, Ce2, . . . Ceii) with four voltage levels, mounted in series. Each switching structure with four voltage levels comprises a cell of floating capacitor type (T1, T2, T1', T2', C12), two basic switching cells (T3u, T3'u; T3l, T3'l) and a capacitive divider bridge (C9, C10, C11), the basic switching cells being connected between the voltage divider bridge and the cell of floating capacitor type.

Abstract (fr)
Il s'agit d'un convertisseur multi-niveaux comportant au moins un bras (B) formé de n étages (Et1, Et2, . . . , Etn) montés en cascade. Le premier étage (Et1) comporte une unique structure de commutation (Ce10) à quatre niveaux de tension et un ième étage (i compris entre deux et n) comporte i structures de commutation (Ce1, Ce2, . . . Ceii) à quatre niveaux de tension, identiques montées en série. Chaque structure de commutation à quatre niveaux de tension comporte une cellule de type à condensateur flottant (T1, T2, T1', T2', C12), deux cellules de commutation de base (T3u, T3'u ; T3l, T3'l) et un pont diviseur capacitif (C9, C10, C11), les cellules de commutation de base étant connectées entre le pont diviseur de tension et la cellule de type à condensateur flottant.

IPC 8 full level
H02M 7/483 (2007.01)

CPC (source: EP RU US)
H02M 7/483 (2013.01 - EP RU US); **H02M 7/4837** (2021.05 - EP US); **H02M 7/537** (2013.01 - US); **H02P 27/14** (2013.01 - US);
H02M 1/0095 (2021.05 - EP US); **H02M 7/487** (2013.01 - EP US)

Citation (applicant)
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CN113726206A; CN111342688A; US10355617B2; WO2017082922A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2945272 A1 20151118; EP 2945272 B1 20190508; AU 2015202564 A1 20151203; AU 2015202564 B2 20161117;
BR 102015010508 A2 20151208; BR 102015010508 B1 20220215; CN 105099244 A 20151125; CN 105099244 B 20180615;
ES 2735723 T3 20191220; FR 3021173 A1 20151120; FR 3021173 B1 20160624; RU 2015117057 A 20161127; RU 2015117057 A3 20180620;
RU 2663822 C2 20180810; US 2015333658 A1 20151119; US 9571004 B2 20170214

DOCDB simple family (application)
EP 15163313 A 20150413; AU 2015202564 A 20150512; BR 102015010508 A 20150508; CN 201510236125 A 20150511;
ES 15163313 T 20150413; FR 1454238 A 20140513; RU 2015117057 A 20150505; US 201514683431 A 20150410